2. (Amended) The method as claimed in claim 1, wherein n is equal to 256, n1 is equal to 16, and n2 is equal to 16.

3. (Amended) The method as claimed in claim 1, further comprising forming the signal sequence K(i) by modulating the second signal sequence K2(k) as follows:

K(i) = K2 (i mod n2) * K1 (i div n2).

4. (Amended) The method as claimed in claim 1, wherein the signal sequence K(i) is contained in a received signal sequence E(1) and is determined in the mobile station by establishing a correlation sums S of the signal sequence K(i) with corresponding sections of the received signal sequence E(1), a partial correlation sum sequence TS(z) of the signal sequence element K2(k) being determined using corresponding parts of the received signal sequence E(1), and n1 elements of the partial correlation sum sequence TS(z) being selected in order to calculate the correlation sum S and being multiplied by the signal sequence element K1(j).

5. (Amended) The method as claimed in claim 4, further comprising selecting n1 in each of n2-th elements of the partial correlation sum sequence TS(z) in order to calculate the correlation sum S.

6. (Amended) The method as claimed in claim 1, wherein, the signal sequence K(i) is contained in a received signal sequence E(1) and is determined in the mobile station by establishing a correlation sums S of the signal sequence K(i) with corresponding sections of the received signal sequence E(1), and

wherein a partial correlation sum sequence TS(z) of the signal sequence K1(j) is determined using selected elements of the received signal sequence E(1), and n2 elements of the partial correlation sum sequence are multiplied by the signal sequence element K2(k) in order to calculate the correlation sum S.

7. (Amended) The method as claimed in claim 6, further comprising selecting n1 in each of n2-th elements of the received signal sequence E(1) in order to calculate a partial correlation sum TS.

8. (Amended) The method as claimed in claim 4, further comprising storing partial correlation sums TS and using the partial correlation sums in order to determine a further correlation sum S.- -